

**Remarks:**

Reconsideration of the application in view of the above amendments and following remarks is requested. Claims 12 and 14 are now in the case. Applicants have cancelled claims 1-11 and 13. Applicants have amended claim 12.

Applicants asserts that the present amendments add no new matter to the application as originally filed. Basis for the amendment to claim 12 can be found in the application as originally filed, see e.g., Example 3, starting at page 87 and Example 4, starting at page 88.

Applicants reserve the right to prosecute claims to cancelled subject matter in one or more continuing applications.

**I. Elections/Restrictions** *(regarding part 2 of the Non-Final Office Action dated September 20, 2007, hereinafter, "the present Office Action")*

The Examiner has acknowledged Applicants' election of the species of inflammatory diseases related to arthritis in the reply filed February 7, 2007.

**II. Priority** *(regarding part 3 of the present Office Action)*

The Examiner has objected the present application under 37 C.F.R. §1.78. Specifically, the Examiner has indicated that the first sentence of the specification should be updated to include the status of the parent application, U.S. Patent Application Serial No. 09/746,375, filed on December 22, 2000.

Applicants have amended the first sentence of the specification to include the status of the parent application. Consequently, Applicants respectfully request that the present objection be properly withdrawn.

**III. Specification** *(regarding part 4 of the present Office Action)*

The Examiner has objected to the present application for recitation of "[#####]" on page 17, lines 4 and 12.

Applicants have amended the paragraph beginning on page 17, line 1 as originally presented to replace recitation of "[#####]" where it appears with "WO 01/40467, filed on December 1, 2000", the commonly owned PCT International Application. Consequently Applicants respectfully request that the present objection be properly withdrawn.

The Examiner has objected to the present application because it contains an embedded hyperlink and/or other form of browser-executable code, for example on pages 79, 93, and 117.

Applicants have amended the paragraphs beginning on page 78, line 23; page 93, line 3; and page 117, line 19 as originally presented to remove embedded hyperlinks. Consequently, Applicants request that the present objection be properly withdrawn.

#### **IV. Rejection Under 35 U.S.C. §101** *(regarding part 5 of the present Office Action)*

The Examiner has rejected claims 1-14 under 35 U.S.C. §101.

To simplify matters under consideration and to expedite prosecution and allowance, Applicants have cancelled claims 1-11 and 13. Consequently, the present rejection of claims 1-11 and 13 under 35 U.S.C. §101 has been rendered moot as applied thereto, and Applicants respectfully request that the rejection be properly withdrawn.

With regard to claims 12 and 14, Applicants respectfully traverse. The present invention is supported by specific and substantial utility.

Claims 12 and 14 encompass a specific and substantial utility. The claims specifically encompass a method for detecting activated CD3+ T-cells in a patient suffering from inflammation comprising assaying for nucleotides of the present invention.

Moreover, said utility is substantial. **Applicants have shown that Zcyto18 plays a role in inflammation.** For example, Zcyto18 is responsible in an *in vivo* study for significant elevations in neutrophil and platelet counts in blood and increased levels of globulin and decreased levels of albumin in liver, which is consistent with the observation of an inflammatory response induced by TNF- $\alpha$ , see e.g., Example 11 starting on page 103.

Applicants have provided further support for the Zcyto18 role in inflammation in the later filed application, U.S. Application Serial Number 10/395,741, filed on March 24, 2003, now U.S. Patent Number 7,265,211 (hereinafter, "02-04"). Zcyto18 (IL-T1F) expressing transgenic mice exhibit skin inflammation, see e.g. 02-04, Example 23 starting at page 142. Zcyto18 is responsible *in vivo* for weight loss, appearance of the acute phase protein, Serum Amyloid A, and metabolic perturbations shown by decreased serum glucose, albumin, and urea nitrogen, which suggests that

Zcyto18 acts early in certain inflammatory responses, see e.g. 02-04, Example 24 starting on page 145. Mice exhibiting ulcerative colitis brought on by ingestion of dextran sulfate sodium exhibited increased expression of Zcyto18 in the distal colon, which suggests that Zcyto18 plays a role in certain types of inflammatory responses such as inflammatory bowel disease, ulcerative colitis, and Crohn's Disease, see e.g. 02-04, Example 25, starting at page 250. Mice exhibiting the inflammatory disease, endotoxemia, brought on by injection of lipopolysaccharide exhibited increased expression of Zcyto18, which suggests that Zcyto18 is a pro-inflammatory molecule, see e.g. 02-04, Example 31, starting at page 162. Zcyto18 is responsible in an *in vivo* study for acanthosis, thickening of the skin, see e.g. 02-04, Example 33, starting at page 169. And, Zcyto18 is up-regulated in human skin samples of psoriasis, an inflammatory disease, see e.g. 02-04, Example 34, starting at page 173.

**Applicants have shown that Zcyto18 activates CD3+ T-cells.** Zcyto18 message is present in resting CD3+ T-cells and Zcyto18 message is strongly increased with activation of CD3+ T-cells, see e.g., Example 3, starting at page 87 and Example 4, starting at page 88.

Based on these characteristics, one of ordinary skill in the art would immediately appreciate that the invention is useful for detecting activated CD3+ T-cells in a patient suffering from inflammation. Consequently, the claims encompass a specific and substantial utility, and Applicants respectfully request that the Examiner properly withdraw the present rejection of claims 12 and 14 under 35 U.S.C. §101.

**V. Rejection Under 35 U.S.C. §112, First Paragraph** (*regarding part 6 of the present Office Action*)

The Examiner has rejected claims 1-14 under 35 U.S.C. §112 first paragraph. The Examiner has alleged one of skill in the art would not know how to use the claimed invention because it is not supported by either a specific and substantial asserted utility or a well established utility.

With regard to claims 12-14, Applicants respectfully traverse. Applicants have shown in part IV above that the claimed invention is supported by a specific and substantial asserted utility. Therefore, one of skill in the art would in fact know how to use the claimed invention. Consequently, Applicants respectfully request that the present rejection be properly withdrawn.

**VI. Effective Priority Date** (*regarding part 7 of the present Office Action*)

The Examiner has determined that the effective priority date of the present application is December 23, 1999.

**VII. Rejection under 35 U.S.C. 103(a)** (*regarding part 8 of the present Office Action*)

The Examiner has rejected claims 1-3 under 35 U.S.C. §103(a).

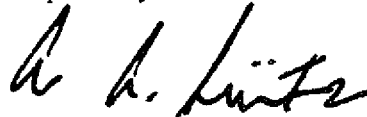
To simplify matters under consideration and to expedite prosecution and allowance, Applicants have cancelled claims 1-3. Consequently, the present rejection of claims 1-3 under 35 U.S.C. §103(a) has been rendered moot as applied thereto, and Applicants respectfully request that the rejection be properly withdrawn.

**VIII. Conclusion**

On the basis of the above amendments and remarks, Applicants believe that each rejection has been addressed and overcome. Reconsideration of the application and its allowance are requested. If for any reason the Examiner feels that a telephone conference would expedite prosecution of the application, the Examiner is invited to telephone the undersigned at (206) 434-3410.

The fee for the two month extension of time will be paid online via EFS. It is believed that no other fee is due; however, in the event that another fee is due, please charge any fee or credit any overpayment to Deposit Account No. 26-0290.

Respectfully Submitted,



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Enclosures:

Petition and Fee for Extension of Time

Customer No. 10117  
ZymoGenetics, Inc.